

Geological Technics Inc. _____

REPORT

Groundwater Monitoring 2nd Quarter 2005

**City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Ave.
Escalon, CA**

**Project No. 750.2
June 28, 2005**

**Prepared for:
Mr. Doug Stidham
City of Escalon
Engineering & Public Works
P.O. Box 248
Escalon, California 95320**

**Prepared by:
Geological Technics Inc.
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June 28, 2005

Project No.: 750.2
Project Name: City of Escalon (Former Arco)

Mr. Doug Stidham
City of Escalon
P.O. Box 248
Escalon, California 95320

RE: Report: 2nd Quarter 2005 Groundwater Monitoring
Location: Former Arco Gas Mini Mart, 1305 Escalon Ave, Escalon, CA

Dear Mr. Stidham:

Geological Technics Inc. has prepared the following Report for the 2nd Quarter 2005 Groundwater Monitoring work performed at the Former Arco Mini Mart. If you should have any questions please do not hesitate to call.

If you have any questions, please contact us at (209) 522-4119.

Respectfully submitted,

Raynold I. Kablanow II, Ph.D.
Vice President

cc: Lori Duncan – SJC PHS/EHD
Jim Barton - CRWQCB-CVR

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1.0	HYDROGEOLOGIC SYSTEM
1.1	Regional Structure
1.2	Regional Stratigraphy
1.3	Site-Specific Hydrogeology
1.3.1	Lithology and Soil Characteristics
1.3.2	Groundwater Bearing and Gradient
1.3.3	Vertical Groundwater Gradient
1.3.4	Average Groundwater Velocity
2.0	GROUNDWATER MONITORING
2.1	Monitoring Well – Groundwater Sampling Procedure
2.2	Laboratory Analyses
2.3	Laboratory Analytical Results
3.0	FINDINGS AND DISCUSSION
4.0	LIMITATIONS
5.0	SIGNATURES AND CERTIFICATION

FIGURES

VICINITY MAP	1
SITE MAP	2
GROUNDWATER GRADIENT CONTOUR MAP	3
ROSE DIAGRAM	4

APPENDICES

SUMMARY TABLES	A
LABORATORY ANALYTICAL DATA SHEETS	B
GROUNDWATER MONITORING FIELD LOGS	C

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REPORT

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**City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Ave.
Escalon, CA**

Project No. 750.2
June 28, 2005

EXECUTIVE SUMMARY

This report summarizes the 2nd Quarter 2005 groundwater monitoring work that took place at The City of Escalon – Former Arco AM-PM (COE) site on May 26, 2005.

The average groundwater elevation increased by approximately 0.34-feet from the February 16, 2005 groundwater-monitoring event. Groundwater bearing was westerly with a slope of 0.0027 ft/ft. Groundwater flow direction and slope has remained relatively consistent in the area since April of 2000.

A vertical groundwater gradient calculation was made for the May 26, 2005 groundwater-monitoring event. The vertical gradient was found to be in a downward direction with a slope that is greater than the water table horizontal gradient.

Oxidation-reduction potential is positive in all monitoring wells. Dissolved oxygen ranges between 3.6 and 4.3 ppm. The pH at the site ranges between 6.87 and 7.12. These indicators suggest site conditions are ideal for natural biodegradation.

Laboratory analysis of the groundwater samples, collected during the May 26, 2005, groundwater-monitoring event, indicate all the monitoring wells are non-detect above laboratory reporting limits for all analyzed constituents.

1.0 HYDROGEOLOGIC SYSTEM

1.1 Regional Structure

The COE site is located in the northwest quarter, of the northwest quarter of Section 4, T2S, R9E, related to the Mount Diablo B&M, on the United States Geological Survey (USGS) topographic map, Escalon Quadrangle, California, 7.5 minutes series. A review of the USGS Topographic Map reveals that the elevation of this site is approximately 115-feet above mean seal level (AMSL).

The site is located on the gradually sloped floor of the northern San Joaquin Valley. The geologic composition of the area is characterized as fluvial deposits of the San Joaquin - Sacramento River delta system that overlay continental rocks and deposits derived from erosion of the Sierra Nevada Mountain Range located approximately 50 miles northeast of Modesto.

The southwest tilting Sierra Nevada fault block underlies the northern San Joaquin Valley area. Overlying the consolidated rocks are unconsolidated sediments. The lower consolidated batholithic and metamorphic rocks are poorly transmissive; however, the overlying sedimentary layers are often quite permeable. These unconsolidated layers include Pliocene/Pleistocene age continental deposits, Pleistocene age lacustrine and marsh deposits, and Holocene older and younger alluviums and flood-basin deposits.

1.2 Regional Stratigraphy

The following information comes from the United States Department of Agriculture – Soil Conservation Service (USDA). *Soil Survey of San Joaquin County, California* (1992) indicates the area surrounding the COE site is predominately made up of one general soil type:

- DELHI – VERITAS – TINNIN: A gentle 0 to 2 percent slope; moderately well drained to somewhat excessively drained, coarse textured and moderately coarse textured soils that are deep to a cemented hardpan or are very deep; on dunes, alluvial fans and low fan terraces.

The USDA *Soil Survey of San Joaquin County, California* (1992), states the area beneath the COE is categorized as Delhi loamy sand with the following description:

- Delhi loamy sand – 0 to 2 percent slopes. Very deep, somewhat excessively drained, nearly level soil on dunes. It formed in wind-modified alluvium derived from granitic rock sources. The average annual precipitation is about 11-inches, the average air temperature is about 60° F.

1.3 Site-specific Hydrogeology

1.3.1 Lithology and Soil Characteristics

- Top two feet of the site appears to be backfill materials comprised of gravel and sand
- Brown, poorly sorted, sand from 5 to 10 feet bgs, which overlies a dry, light brown, silt unit between 10 and 20 feet bgs
- The geology from 20 to 30 feet bgs consists of various layers of grey colored silt and sand
- The predominant geology between 30 and 45 feet bgs is comprised of a buff color, poorly sorted sand containing some clasts greater than 1 centimeter in size
- Grey silt and sandy silt layers were noted between 43.5 and 50 feet bgs
- Sand characterizes the 50 to 55 foot interval – buff and well sorted at 50 feet bgs grading down to brown and poorly sorted at 55 feet bgs

A site map showing the locations of streets, structures, wells, and other site-related details is attached as Figure 2.

1.3.2 Groundwater Bearing and Gradient

The average groundwater elevation measured during the May 26, 2005, groundwater-monitoring event was 55.40 feet AMSL, which is consistent with previously measured groundwater elevations at the site. The groundwater elevation increased approximately 0.34 feet since the February 16, 2005 monitoring event. Depth-to-water measurements averaged 64.74 feet bgs.

Groundwater gradients were calculated for the May 2005 monitoring event using MW-1, MW-2 and MW-3. Groundwater was flowing N74°W with a gradient measuring 0.0027 ft/ft. The elevation, gradient and bearing data are summarized in Table 1 of Appendix A. The groundwater gradient is illustrated on Figure 3: Groundwater Gradient Map. Historical groundwater directions and gradients are presented in Figure 4: Rose Diagram, which shows a historically westerly flow direction.

As required under AB2886, the depth to groundwater data was submitted electronically to GeoTracker on June 24, 2005, with confirmation number 3553954899.

1.3.3 Vertical Groundwater Gradient

For the May 26, 2005, groundwater measurement, the vertical gradient was calculated for the MW-1/MW-101 pair. The vertical gradient was negative (a downward direction). The vertical groundwater gradient is greater than the horizontal groundwater gradient. Generally, the magnitude of the vertical gradient has decreased since February 2001.

Figure 2 shows the location of the well cluster used for calculating vertical groundwater gradient in this report, MW-1 and MW-101. Table 2 of Appendix A summarizes the calculated vertical gradients.

1.3.4 Average Groundwater Velocity

The lithology at the COE site will be divided into four general layers for the purposes of calculating the average horizontal groundwater velocity.

- Layer 1 consists of silts and sands from 5- to 30-feet bgs
- Layer 2 is primarily sand with some larger clasts from 30- to 45-feet bgs
- Layer 3 is primarily silt from 45- to 50-feet bgs
- Layer 4 is primarily sand from 50- to 70-feet bgs.

The average depth to groundwater at the site suggests only Layer 4 will contain groundwater in a saturated state. The following calculations are based on the equation $v = K i/n$, where v is the average horizontal groundwater velocity, K is the average hydraulic conductivity, i is the average hydraulic gradient, and n is the effective porosity. K and n values are estimated from tables in Groundwater and Wells 2nd Edition (Driscoll, F.G., 1986).

- The average horizontal groundwater velocity (v) of Layer 1 is estimated to be approximately 0.065 to 6.5 ft/yr.
- The average horizontal groundwater velocity (v) of Layer 2 is estimated to be approximately 5.7 to 2,850 ft/yr.
- The average horizontal groundwater velocity (v) of Layer 3 is estimated to be approximately $5.6E10^4$ to 0.057 ft/yr.
- The average horizontal groundwater velocity (v) of Layer 4 is estimated to be approximately 0.758 to 75.8 ft/yr.

2.0 GROUNDWATER MONITORING

2.1 Monitoring Well – Groundwater Sampling Procedure

On May 26, 2005, Del-Tech mobilized to the site to conduct a groundwater-monitoring event. Del-Tech personnel opened the wells and measured the depth to water with an electrically actuated sounding tape. The water level reading was recorded to an accuracy of 0.01 foot. No floating product was detected during the monitoring event.

Stagnant water in the well casing was purged using a Waterra© pump or hand pump and dedicated tubing. The rate of well purging was monitored. The well was purged of at least three casing volumes until the groundwater parameters (temperature, conductivity and pH) had stabilized (Appendix C) indicating that water representative of actual aquifer conditions was entering the well. Groundwater parameter stabilization was characterized by three successive readings within 10%.

Before a sample was collected, the well's water level was allowed to recharge to at least 80% of its initial level. All water removed from the monitoring well and not used as a sample was placed in a 55 gallon DOT approved container that is properly labeled and temporarily stored on-site.

A Waterra© pump and dedicated tubing were used to collect each sample. Extreme care was exercised while collecting samples to prevent agitation of the water contained in the Waterra© pump. With minimal sample aeration, water samples were transferred from the pump into 40-ml VOA vials preserved with hydrochloric acid. Each sample container was checked for headspace bubbles, identified and labeled with a unique designation, inserted into foam holders and placed in a chilled ice chest for transport to the laboratory.

All non-disposable sampling equipment was decontaminated using a steam cleaner before and between uses. Disposable gloves were used by the technician to collect all samples and were changed with each sampling event.

A chain of custody document, listing all samples collected and their intended analyses, accompanied the samples from field to the laboratory, thereby providing a means to track the movement of and ensure the integrity of the samples.

Groundwater monitoring field logs are included in Appendix C.

2.2 Laboratory Analyses

The groundwater samples collected on May 26, 2005, were delivered to California Laboratory Services (CLS) of Rancho Cordova, California (ELAP# 1233), for analysis.

The groundwater samples were analyzed for:

- Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX) by EPA method 8020/8015
- Total Petroleum Hydrocarbons as Gasoline (TPH-G) by EPA method 8020/8015

The detection limits for the above analyses are listed in Table 3 of Appendix A and the lab data are presented in Appendix B.

As required under AB2886, the laboratory data was submitted electronically to GeoTracker on June 24, 2005. The confirmation number is 6209718942.

2.3 Groundwater Analytical Results

Groundwater Monitoring Wells

- All groundwater-monitoring wells were non-detect above laboratory reporting limits for all analyzed constituents.
- Groundwater analytical data are summarized in Table 3 of Appendix A.

Groundwater Parameters

- pH measurements collected from the water table wells range between 6.87 and 7.12 and are conducive to biodegradation activity.
- EC measurements in the water table wells range from 647 Φ mhos/cm to 842 Φ mhos/cm.
- Oxidation-reduction potential (ORP) measurements were positive in all water table monitoring wells and ranged between 107 mV and 115 mV.
- All water table and deep monitoring wells at the site has Dissolved Oxygen (DO) levels greater than 3.50 ppm. DO measurements above 2.0 ppm indicate conditions are conducive to aerobic biodegradation.
- Field parameters recorded in the deep well MW-101 are consistent with data from the water table wells.

Table 4 summarizes the groundwater parameters measured at the site.

3.0 FINDINGS & RECOMMENDATIONS

Findings

The results of the groundwater sample analyses show the following:

- All groundwater-monitoring wells were non-detect above laboratory reporting limits for all analyzed constituents.
- Vertical groundwater gradient was calculated for this event and was found to be negative. This monitoring event shows the greatest negative reading recorded at the site. The depth to groundwater in MW-1 may have been improperly recorded. Future depth to water measurements should clear up any issues with vertical gradients.
- Oxidation-Reduction Potential measurements are positive for all the wells. This suggests that the volume of contaminants leaching into groundwater has been stopped and that biodegradation of the contaminants is at a rate sufficient to mitigate the residual BTEX/TPH-G plume in the area around the source without depleting the oxygen.
- The dissolved oxygen measured at the site is between 3.6 and 4.3 ppm and is conducive to natural attenuation of BTEX/TPH-G.
- It appears that soil contamination has been reduced significantly by the vapor extraction process that oxygen has been added to the subsurface and that no groundwater contamination is present in the monitoring wells.
- Excellent progress has been made at this site. Clean-up goals are being met; groundwater is free of known constituents and has returned to background conditions.
- Biodegradation indicators suggest that the trace remnants of soil contamination will degrade by natural attenuation.

Recommendations:

- This site should be considered for closure. GTI submitted an Appendix B Site Closure Checklist on May 16, 2005.
- Continue quarterly groundwater monitoring at the site until closure is achieved.

4.0 LIMITATIONS

This report was prepared in accordance with the generally accepted standard of care and practice in effect at the time Services were rendered. It should be recognized that definition and evaluation of environmental conditions is an inexact science and that the state or practice of environmental geology/hydrology is changing and evolving and that standards existing at the present time may change as knowledge increases and the state of the practice continues to improve. Further, that differing subsurface soil characteristics can be experienced within a small distance and therefore cannot be known in an absolute sense. All conclusions and recommendations are based on the available data and information.

The tasks proposed and completed during this project were reviewed and approved by the local regulatory agency for compliance with the law. No warranty, expressed or implied, is made.

5.0 SIGNATURES & CERTIFICATIONS

This report was prepared by:

Eric L. Price
Geologist

Raynold Kablanow II, Ph.D.
California Professional Geologist #5234
Certified Hydrogeologist #442



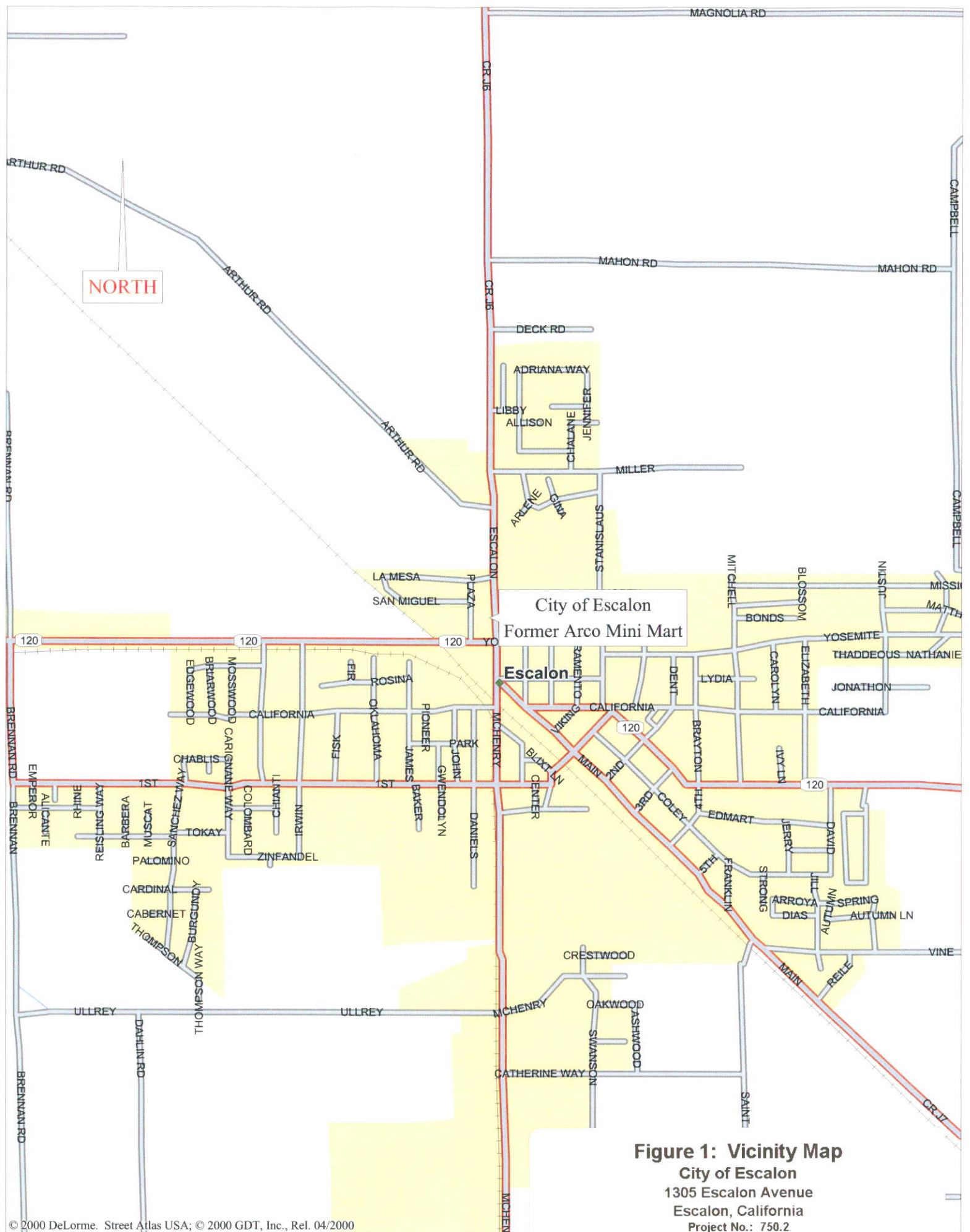


Figure 1: Vicinity Map

City of Escalon
1305 Escalon Avenue
Escalon, California

Project No.: 750.2
1 Inch = 0.25 Miles

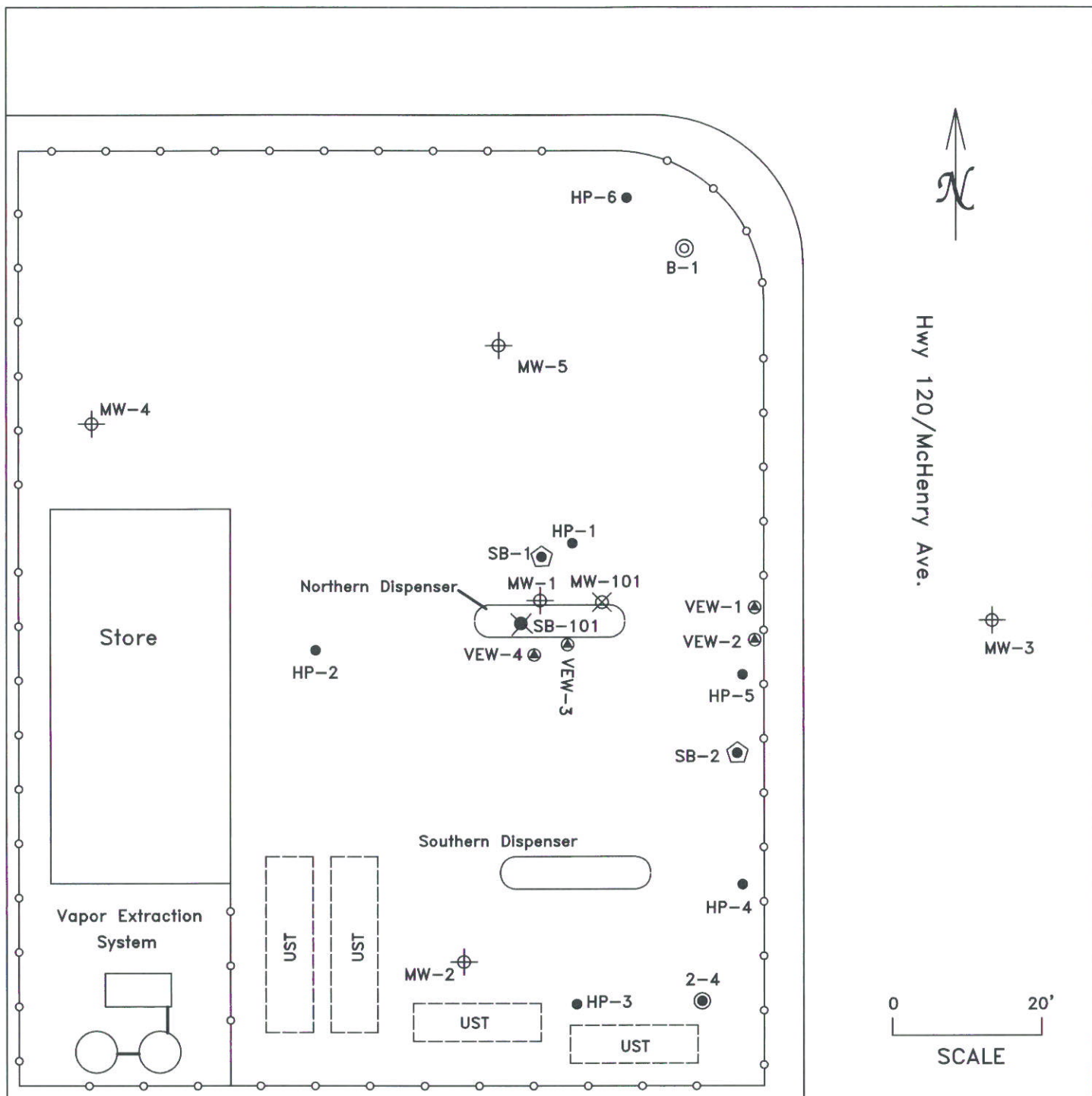


Fig 2: Site Map

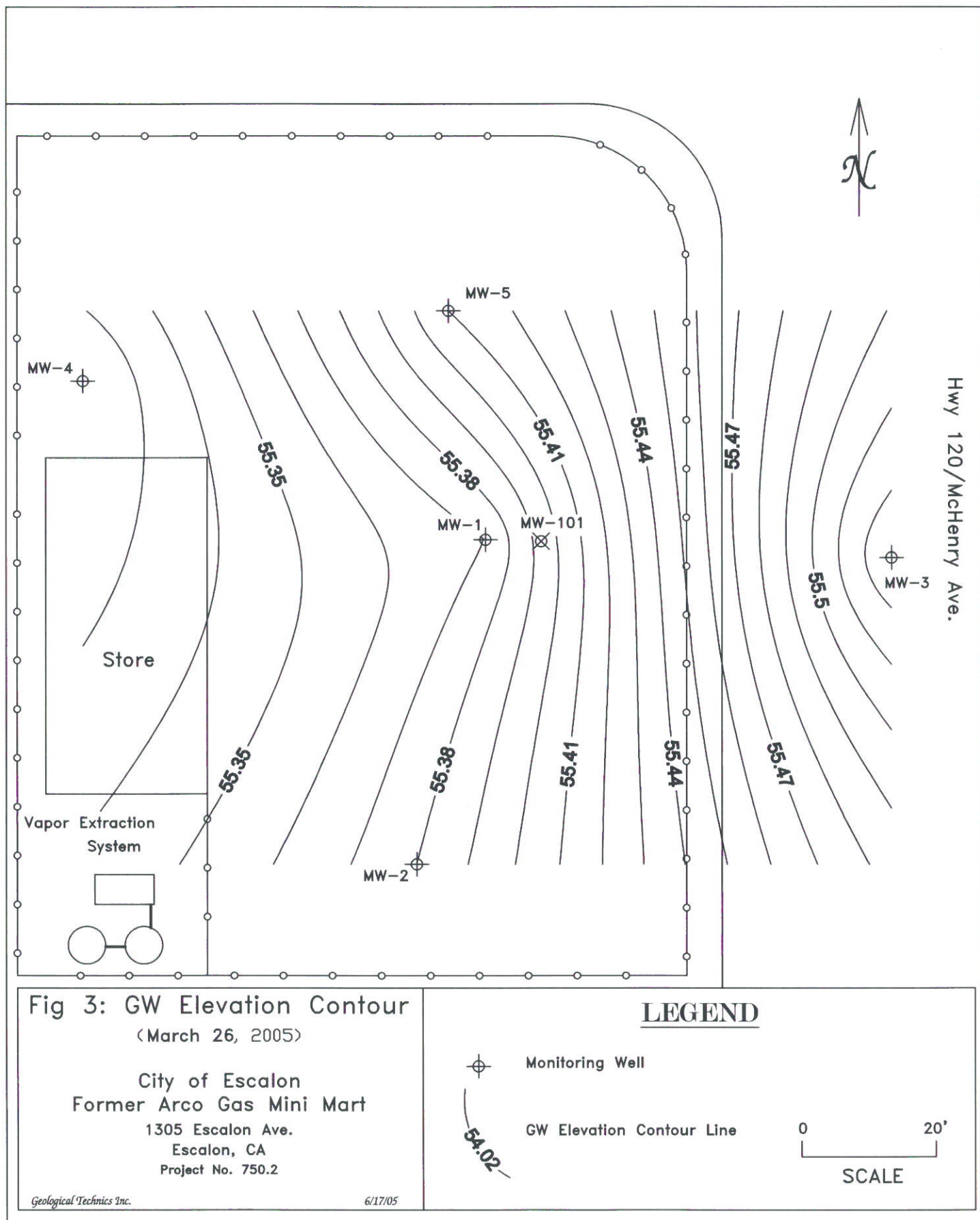
City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Ave.
Escalon, CA
Project No. 750.2

Geological Technics Inc.

4/28/05

LEGEND

- | | | | |
|---|-----------------------------|---|-------------------------------|
| ⊙ | Soil Boring - June 1996 | ⬢ | Soil Borings - September 2003 |
| ● | Soil Boring - March 1997 | ⊕ | Monitoring Well |
| ● | Soil Boring - February 1999 | ⊗ | Vapor Extraction Well |
| ⊗ | Soil Boring - October 2000 | ⬢ | Former UST |
| ⬢ | Dispenser | | |



	Date	Direction	Slope
1	04/18/00	N80°W	0.0025 ft/ft
2	06/12/00	N75°W	0.0025 ft/ft
3	07/14/00	N72°W	0.0024 ft/ft
4	09/01/00	N81°W	0.0025 ft/ft
5	12/01/00	N83°W	0.0023 ft/ft
6	02/22/01	N83°W	0.0023 ft/ft
7	05/15/01	N78°W	0.0024 ft/ft
8	08/15/01	N77°W	0.0010 ft/ft
9	11/16/01	N87°W	0.0021 ft/ft
10	01/14/02	N89°W	0.0019 ft/ft
11	03/14/02	N81°W	0.0018 ft/ft
12	06/28/02	N68°W	0.0019 ft/ft
13	09/23/02	N83°W	0.0013 ft/ft
14	12/30/02	N80°W	0.0015 ft/ft
15	03/06/03	N82°W	0.0012 ft/ft
16	06/05/03	N74°W	0.0026 ft/ft
17	09/06/03	N89°W	0.0020 ft/ft
18	12/09/03	N62°W	0.0029 ft/ft
19	03/13/04	N74°W	0.0029 ft/ft
20	05/07/04	N83°W	0.0028 ft/ft
21	08/12/04	N82°W	0.0022 ft/ft
22	11/26/04	N83°W	0.0026 ft/ft
23	02/16/05	N85°W	0.0018 ft/ft
24	05/26/05	N74°W	0.0027 ft/ft

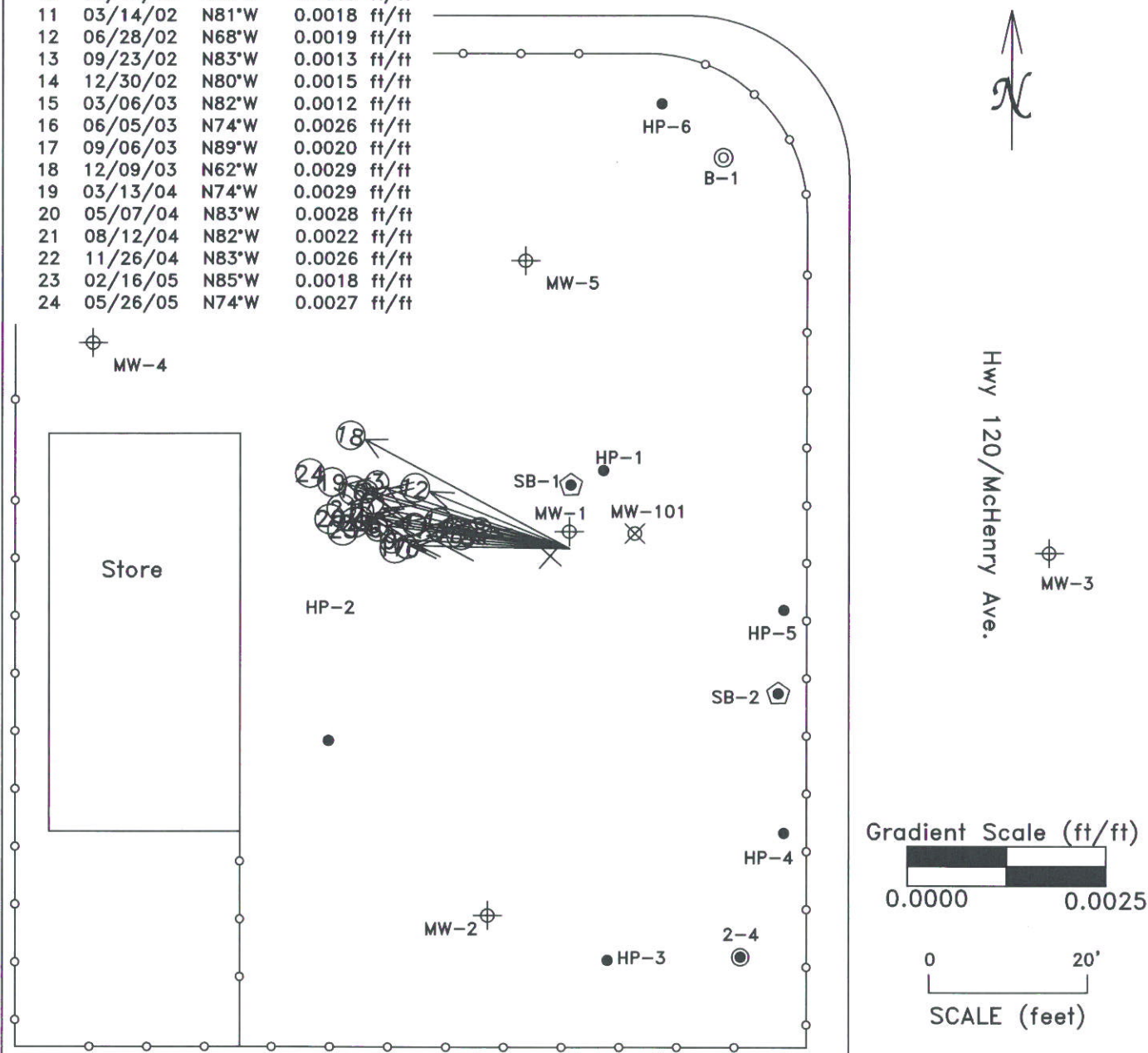


Fig 4: Rose Diagram

City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Ave.
Escalon, CA
Project No. 750.2

Geological Techniques Inc.

6/16/05

- ⊙ Soil Boring - June 1996
- ⊗ Soil Borings - September 2003
- Soil Boring - March 1997
- ⊕ Monitoring Well
- Soil Boring - February 1999
- × Soil Boring - October 2000

Appendix A

Summary Tables

Table 1: Summary of Groundwater Elevations, Gradients and Bearings

City of Escalon-Former Arco Mini Mart
1305 Escalon Ave.
Escalon, CA
Project No. 750.2

Date	Elevation of Groundwater *										DTW Avg.	Gradient Bearing	Gradient Slope
	MW-1 GWL Elev.	MW-2 GWL Elev.	MW-3 GWL Elev.	MW-4 GWL Elev.	MW-5 GWL Elev.	MW-101 GWL Elev.	Elevation Avg.						
04/18/00	56.55	56.56	56.70				56.60	61.49	N80°W	0.0025			
06/12/00	56.70	56.72	56.85				56.76	61.34	N75°W	0.0025			
07/14/00	56.39	56.42	56.53				56.45	61.65	N72°W	0.0024			
09/01/00	55.75	55.76	55.90				55.80	62.29	N81°W	0.0025			
12/01/00	56.16	56.17	56.30	56.13	56.21	55.74	56.19	61.73	N83°W	0.0023			
02/22/01	56.75	56.76	56.89	56.69	56.77	56.50	56.77	61.12	N83°W	0.0023			
05/15/01	56.60	56.62	56.75	56.53	56.63	56.38	56.63	61.26	N78°W	0.0024			
08/15/01	55.29	55.30	55.44	55.25	55.33	55.06	55.32	62.57	N77°W	0.0010			
11/16/01	54.94	54.93	55.07	54.88	54.97	54.87	54.96	62.90	N87°W	0.0021			

Date	Elevation of Groundwater (Wells Resurveyed According to AB 2886 on 1/14/02)										DTW Avg.	Gradient Bearing	Gradient Slope
	MW-1 GWL Elev.	MW-2 GWL Elev.	MW-3 GWL Elev.	MW-4 GWL Elev.	MW-5 GWL Elev.	MW-101 GWL Elev.	Wtr. Table Avg. Elev.						
01/14/02	57.72	57.73	57.87	57.65	57.75	57.69	57.74	62.40	S89°W	0.0019			
03/14/02	58.17	58.19	58.33	58.12	58.21	58.24	58.20	61.94	N81°W	0.0018			
06/28/02	57.70	57.73	57.84	57.63	57.72	57.68	57.72	62.42	N68°W	0.0019			
09/23/02	56.13	56.13	56.27	56.09	56.17	56.12	56.16	63.99	N83°W	0.0013			
12/30/02	56.94	56.95	57.08	56.88	56.97	56.95	56.96	63.18	N80°W	0.0015			
03/06/03	57.35	57.35	57.50	57.30	57.38	57.37	57.38	62.77	N82°W	0.0012			
06/05/03	56.92	56.95	57.08	56.87	56.96	56.95	56.96	63.19	N74°W	0.0026			
09/06/03	55.45	55.43	55.57	55.38	55.50	55.42	55.47	64.68	N89°W	0.0020			
12/09/03	55.43	55.47	55.59	55.37	55.49	55.45	55.47	64.67	N62°W	0.0029			
03/13/04	56.42	56.43	56.59	56.38	56.47	56.44	56.46	63.69	N74°W	0.0029			
05/07/04	55.91	55.90	56.07	55.86	55.95	55.92	55.94	64.21	N83°W	0.0028			
08/12/04	54.17	54.15	54.30	54.13	54.22	54.17	54.19	65.95	N82°W	0.0022			
11/26/04	54.06	54.05	54.21	53.99	54.09	54.06	54.08	66.06	N83°W	0.0026			
02/16/05	55.06	55.05	55.17	54.96	55.05	55.03	55.06	65.09	N85°W	0.0018			
05/26/05	55.37	55.38	55.53	55.32	55.41	55.03	55.40	64.74	N74°W	0.0027			
Historical Average =											62.65	N73°W	0.0020

Table 2
Vertical Groundwater Gradient Calculations
City of Escalon - Former ARCO Mini Mart
(feet above MSL)

Date	Well Pair	Vert Head	Vert Dist	Vertical Gradient
1-Dec-00	MW-1 MW-101	-0.44	19.23	-0.0228
22-Feb-01	MW-1 MW-101	-0.27	19.52	-0.0138
15-May-01	MW-1 MW-101	-0.24	19.45	-0.0123
15-Aug-01	MW-1 MW-101	-0.24	18.79	-0.0127
16-Nov-01	MW-1 MW-101	-0.09	18.62	-0.0047
14-Jan-02	MW-1 MW-101	-0.05	20.01	-0.0023
14-Mar-02	MW-1 MW-101	0.06	20.23	0.0027
28-Jun-02	MW-1 MW-101	-0.04	20.00	-0.0018
23-Sep-02	MW-1 MW-101	-0.02	19.21	-0.0011
30-Dec-02	MW-1 MW-101	0.00	19.62	-0.0001
6-Mar-03	MW-1 MW-101	0.01	19.82	0.0005
5-Jun-03	MW-1 MW-101	0.01	19.61	0.0005
6-Sep-03	MW-1 MW-101	-0.05	18.87	-0.0024
9-Dec-03	MW-1 MW-101	0.00	18.86	-0.0002
13-Mar-04	MW-1 MW-101	0.00	19.36	-0.0002
7-May-04	MW-1 MW-101	-0.01	19.10	-0.0006
12-Aug-04	MW-1 MW-101	-0.02	18.23	-0.0010
26-Nov-04	MW-1 MW-101	-0.02	18.18	-0.0011
16-Feb-05	MW-1 MW-101	-0.01	18.68	-0.0008
26-May-05	MW-1 MW-101	-0.36	18.83	-0.0192

Table 3: Summary of Groundwater Analytical Data

City of Escalon-Former Arco Mini Mart
1305 Escalon Ave.
Escalon, CA
Project No. 750.2

Wells	Date	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Total Xylenes ug/L	TPH Gasoline ug/L	MTBE ug/L	ETBE ug/L	DIPE ug/L	TAME ug/L	TBA ug/L	EDB	1,2-DCA
MW-1	04/18/00	62	42	10	57	516	220	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	07/14/00	9	10	0.9	6	74	23	ND<5	ND<5	ND<5	ND<20		
	09/01/00	8	5	0.8	7	76	62	ND<10	ND<10	ND<10	ND<40		
	12/01/00	8	10	2	15	115	58	ND<5	ND<5	ND<5	ND<20		
	02/22/01	9	14	2	20	163	55	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	05/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	71	ND<5	ND<5	ND<5	ND<20		
	08/15/01	1.3	6.2	0.98	20	72	51	ND<5	ND<5	ND<5	ND<50		
	11/16/01	1.9	6.6	2.1	30.4	186	6.2	ND<5	ND<5	ND<5	ND<20		
	03/14/02	0.9	1.6	0.7	9.2	72	80	ND<5	ND<5	ND<5	ND<20		
	06/28/02	ND<0.3	0.4	0.8	19.4	139	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/23/02	ND<0.3	ND<0.3	ND<0.3	1.2	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/30/02	ND<0.3	ND<0.3	ND<0.3	0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	03/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	06/05/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<20		
	09/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	12/09/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
MW-2	03/13/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	05/07/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	08/12/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	11/26/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	02/16/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
	05/26/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
	04/18/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	07/14/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/01/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/01/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	02/22/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	05/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	08/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<50	ND<5	ND<5	ND<5	ND<5	ND<50		

Wells	Date	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Total Xylenes ug/L	TPH Gasoline ug/L	MTBE ug/L	ETBE ug/L	DIPE ug/L	TAME ug/L	TBA ug/L	EDB	1,2-DCA
MW-2	11/16/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	03/14/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	06/28/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/23/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/30/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	03/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	06/05/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<20		
	09/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	12/09/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	03/13/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	05/07/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	08/12/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	11/26/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	02/16/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
	05/26/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
MW-3	04/18/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	07/14/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/01/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/01/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	02/22/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	05/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	08/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<50		
	08/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	03/14/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	06/28/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/23/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/30/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	03/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	06/05/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<20		
	09/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	12/09/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	03/13/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	05/07/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	08/12/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	11/26/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.3	ND<0.5	ND<0.5	ND<0.5	ND<20		
	02/16/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		

Wells	Date	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Total Xylenes ug/L	TPH Gasoline ug/L	MTBE ug/L	ETBE ug/L	DIPE ug/L	TAME ug/L	TBA ug/L	EDB	1,2-DCA
MW-3	05/26/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
MW-4	12/01/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	02/22/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	05/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	08/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<50	ND<5	ND<5	ND<5	ND<5	ND<50		
	11/16/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	03/14/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	06/28/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/23/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/30/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	03/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	06/05/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<20		
	09/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	12/09/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	03/13/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	05/07/04	ND<0.3	0.5	ND<0.3	0.7	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	08/12/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	11/26/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	02/16/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
	05/26/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
MW-5	12/01/00	ND<0.3	ND<0.3	ND<0.3	ND<0.3	177	ND<5	ND<5	ND<5	ND<5	ND<20		
	02/22/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	209	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	05/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	354	ND<5	ND<5	ND<5	ND<5	ND<20		
	08/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<50	ND<5	ND<5	ND<5	ND<5	ND<50		
	11/16/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	6.1	ND<5	ND<5	ND<5	ND<20		
	03/14/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	06/28/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/23/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/30/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	03/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	06/05/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<20		
	09/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	12/09/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	03/13/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	05/07/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	08/12/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		

Wells	Date	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Total Xylenes ug/L	TPH Gasoline ug/L	MTBE ug/L	ETBE ug/L	DIPE ug/L	TAME ug/L	TBA ug/L	EDB	1,2-DCA
MW-5	11/26/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	02/16/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
	05/26/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
MW-101	12/01/00	3	45	14	84	852	54	ND<5	ND<5	ND<5	ND<20		
	02/22/01	ND<0.3	0.4	ND<0.3	0.9	51	ND<5	ND<5	ND<5	ND<5	ND<20	ND<5	ND<5
	05/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	08/15/01	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<50	ND<5	ND<5	ND<5	ND<5	ND<50		
	11/16/01	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	03/14/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	06/28/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	09/23/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5	ND<5	ND<5	ND<5	ND<20		
	12/30/02	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	03/07/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<10		
	06/05/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<1	ND<5	ND<5	ND<5	ND<20		
	09/06/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	12/09/03	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	03/13/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	05/07/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	08/12/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	11/26/04	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<20		
	02/16/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		
	05/26/05	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<50	NT	NT	NT	NT	NT		

ND= non detect. N/A=Not tested.
ug/L=micrograms per liter(parts per billion)

Table 4: Summary of Groundwater Parameters

City of Escalon
1305 Escalon Avenue
Escalon, California
Project No. 750.2

Monitoring Well	MW-1					MW-2					MW-3				
	pH	E.C.	°F	ORP	DO	pH	E.C.	°F	ORP	DO	pH	E.C.	°F	ORP	DO
Date															
04/18/00				118					165					156	
07/14/00				173					172					184	
02/22/01				65					88					190	
05/15/01				83					88					118	
08/15/01				156					160					118	
11/16/01				66					85					129	
03/14/02	7.11	742	66.6	82		7.80	651	66.6	99		7.16	731	67.6	190	
06/28/02	7.12	699	68.2	156		7.18	602	67.8	111.5		7.17	669	68.2	112.3	
09/23/02	7.38	640	68.9	50		7.27	619	68.4	62.1		7.30	719	72.0	89.4	
12/30/02	7.21	663	66.6	38.3		7.27	579	66.6	33.1		7.04	701	66.6	30.6	
03/06/03	7.20	697	67.1	55		7.09	537	66.92	67		7.05	717	67.1	49	
06/06/03	7.37	716	67.5	87	1.86	7.39	556	67.46	92	1.73	7.50	733	67.64	81	2.51
09/06/03	7.41	733	68.2	45	3.98	7.52	663	68.9	34.7	4.16	7.35	754	67.1	54.1	4.82
12/09/03	7.19	717	65.5	115.1	4.02	7.41	680	66.38	99.2	3.45	7.20	766	66.02	112	3.37
03/13/04	7.56	636	66.9	23.9	4.21	7.61	542	67.28	23.5	4.10	7.36	652	67.28	14.7	6.38
05/07/04	7.14	682	67.5	28.8	5.23	7.25	580	67.46	34.3	4.52	7.12	701	67.28	33.1	5.18
08/12/04	7.03	562	67.3	92.0	2.40	7.17	602	67.46	82	3.20	7.03	690	67.82	48	5
11/26/04	7.72	592	66.4	60.5	3.67	7.79	601	66.02	53.4	3.80	7.80	611	66.2	56.8	4.52
02/16/05	7.00	834	66.7	247	4.10	7.14	670	65.84	219	4.10	7.00	811	66.38	227	3.70
05/26/05	7.11	824	66.2	114.9	4.25	7.12	801	67.28	109.4	3.98	7.01	842	68.18	114.6	3.95

Monitoring Well	MW-4					MW-5					MW-101				
	pH	E.C.	°F	ORP	DO	pH	E.C.	°F	ORP	DO	pH	E.C.	°F	ORP	DO
Date															
04/18/00															
07/14/00															
02/22/01				68					87					42	
05/15/01				63					71					74	
08/15/01				175					170					224	
11/16/01				63					62					68	
03/14/02	7.08	490	66.6	65		6.99	777	66.7	44		8.12	583	66.6	42	
06/28/02	7.06	683	67.8	93.2		6.94	669	67.8	98.1		7.26	515	67.8	86.8	
09/23/02	7.15	707	68.4	69.9		7.2	584	68.7	49.6		7.46	549	68.7	66.5	
12/30/02	7.08	653	66.7	41.4		7.01	564	66.9	40.0		7.35	547	66.4	35.2	
03/06/03	7.14	725	66.7	89		7.06	584	67.1	80		7.37	559	66.6	41	
06/06/03	7.34	726	67.1	87	2.30	7.24	628	67.28	90	2.00	7.47	581	67.1	84	1.87
09/06/03	7.24	722	67.5	90.2	4.17	7.17	636	68	64.9	4.22	7.54	639	67.6	44.3	4.02
12/09/03	7.34	588	66.2	70	3.80	7.20	553	66.38	102	3.51	7.42	610	66.0	101.4	3.28
03/13/04	7.10	618	67.1	23.5	4.20	7.25	539	67.46	23.6	3.88	7.52	524	67.1	21.9	4.17
05/07/04	7.25	640	67.5	40.7	7.25	7.24	584	67.64	39.9	4.74	7.27	558	67.5	21.2	4.25
08/12/04	6.97	550	68.0	74	3.10	6.98	508	67.82	82	3.00	7.25	512	67.3	81	2.8
11/26/04	8.43	226	66.9	29.8	3.98	7.89	362	67.28	50.8	3.53	7.79	533	66.9	56.7	3.89
02/16/05	6.90	763	66.7	235	3.60	6.90	649	67.1	236	3.70	7.12	655	66.4	220	3.50
05/26/05	7.02	647	67.6	107.4	3.83	6.87	737	67.82	114.7	3.98	7.09	673	67.5	111.6	3.65

Appendix B

Laboratory Analytical Data Sheets

**(Geotracker Uploaded Report Includes
QAQC Data and Chain of Custody.
Lab results were sent via EDF)**

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

June 07, 2005

CLS Work Order #: COE0847
COC #:

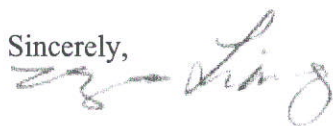
Eric Price
GEOLOGICAL TECHNICS INC.
1101 7th St.
MODESTO, CA 95354

Project Name: City of Escalon Former AM-PM

Enclosed are the results of analyses for samples received by the laboratory on 05/27/05 10:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

06/07/05 15:05

GEOLOGICAL TECHNICS INC.
1101 7th St.
MODESTO, CA 95354

Project: City of Escalon Former AM-PM
Project Number: T0607700842
Project Manager: Eric Price

CLS Work Order #: COE0847
COC #:

Gas/BTEX by GC PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO04122 - EPA 5030 Water GC										
Blank (CO04122-BLK1)				Prepared & Analyzed: 05/27/05						
Gasoline	ND	50	µg/L							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	1.0	"							
Surrogate: o-Chlorotoluene (BTEX)	25.6		"	20.0		128	65-135			
Surrogate: o-Chlorotoluene (Gas)	21.0		"	20.0		105	65-135			
LCS (CO04122-BS1)				Prepared & Analyzed: 05/27/05						
Gasoline	438	50	µg/L	500		87.6	65-135			
Surrogate: o-Chlorotoluene (Gas)	21.8		"	20.0		109	65-135			
LCS Dup (CO04122-BSD1)				Prepared & Analyzed: 05/27/05						
Gasoline	520	50	µg/L	500		104	65-135	17.1	30	
Surrogate: o-Chlorotoluene (Gas)	21.9		"	20.0		110	65-135			
Matrix Spike (CO04122-MS1)				Source: COE0847-06		Prepared & Analyzed: 05/27/05				
Gasoline	418	50	µg/L	500	ND	83.6	65-135			
Surrogate: o-Chlorotoluene (Gas)	21.8		"	20.0		109	65-135			
Matrix Spike Dup (CO04122-MSD1)				Source: COE0847-06		Prepared & Analyzed: 05/27/05				
Gasoline	416	50	µg/L	500	ND	83.2	65-135	0.480	30	
Surrogate: o-Chlorotoluene (Gas)	21.4		"	20.0		107	65-135			

CA DOHS ELAP Accreditation/Registration Number 1233

CALIFORNIA LABORATORY SERVICES

06/07/05 15:05

GEOLOGICAL TECHNIQS INC.
1101 7th St.
MODESTO, CA 95354

Project: City of Escalon Former AM-PM
Project Number: T0607700842
Project Manager: Eric Price

CLS Work Order #: COE0847
COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Appendix C

Groundwater Monitoring Field



**2005
GROUNDWATER
FIELD MONITORING
SUMMARY REPORT**

SITE:

**CITY OF ESCALON
FORMER ARCO AM/PM MINI MART
1305 ESCALON AVENUE
ESCALON, CA
May 26, 2005**



DEL-TECH GEOTECHNICAL SUPPORT SERVICES

MONITORING WELL FIELD LOG 2005

SAMPLE LOCATION / MW 1		DATE: 5/26/2005							
PROJECT NAME: ESCALON / FORMER AM/PM									
ADDRESS: 1305 ESCALON AVENUE		ANALYSIS PERFORMED: SEE CHAIN OF CUSTODY							
CITY, STATE: ESCALON, CA		SAMPLE TIME: 11:16							
SITE CONTACT:		SAMPLE CONTAINERS: 2 V.O.A.'S							
CONSULTANT: GEOLOGICAL TECHNICS		PRESERVATIVES: HCL							
		LAB. ANALYSIS BY: CLS LABS.							
PROJECT MANAGER ERIC PRICE		MONUMENT: FLUSH							
SAMPLER: DEL-TECH / DON LIGHT		WELL CASING MATERIAL PVC							
SIGNED: <i>[Signature]</i>		WELL CASING DIA. : 2" / 0.1632							
SAMPLE MEDIA: GROUNDWATER		P.I.D. READING / ODOR: N/A NONE							
TOP OF CASING ELEVATION: MSL		COLOR: LIGHT BROWN TO CLEAR							
DEPTH TO WATER: (feet.100th's) 64.91 FEET		CALC. PURGE VOL.: 1.84 GAL.							
DEPTH OF WELL: (feet.100th's) 76.20 FEET		TOTAL VOLUME PURGED: 5.53 GAL.							
STANDING WATER COLUMN: 11.29 FEET		DEPTH OF PUMP: 75 FEET							
FIELD PARAMETERS									
TIME	CUMULATIVE CASING VOLUME PER PURGE	DRAW DOWN (D.T.W.)	PUMPING RATE (GPM/LPM)	pH (units)	E. C. (UmMHOS)	TEMP. (Celsius)	O.R.P. (Mvolts)	DISSOLVED OXYGEN (PPM)	TURBIDITY COLOR (N.T.U.)
	0	N/A	.5 GPM	7.06	830	19.7	110.5	3.09	LT. BROWN
	1.84	"	"	7.07	826	19.7	114.2	3.11	"
	3.69	"	"	7.01	828	19.9	114.6	3.09	CLEAR
	5.53	"	"	7.11	824	19.0	114.9	4.25	"
PURGE METHOD: DEDICATED WATERRA PUMP.									
SAMPLE METHOD: DEDICATED WATERRA PUMP.									
D. T. W. AFTER PURGE: D. T. W. AT SAMPLE TIME: 64.90'									
WELL INTEGRITY: CAP & SEAL ARE SECURE.									
WELL LOCATION: SEE SITE MAP.									
REMARKS:									
WEATHER: CLEAR SKIES / WARM WIND: NONE									
QUALITY CONTROL: ALL PURGING EQUIPMENT AND SAMPLING EQUIPMENT WAS CLEANED IN THE FIELD WITH A STEAMCLEANER & ALCONOX SOAP. NEW NITRILE GLOVES.									
CONTAINMENT: D.O.T. 17 55 GAL. STEEL DRUM OR 60 GAL. POLY DRUM.									
INSTRUMENTATION: Y.S.I. 3560 FLOWCELL Y.S.I. DISSOLVED OXYGEN METER									
SOLINIST SLOPE METER THERMODINE 580B P.I.D.									
KECK INTERFACE METER TURBIDITY METER									
# OF DRUMS ON SIGHT: WATER: 3 SOIL: 0									



DEL-TECH GEOTECHNICAL SUPPORT SERVICES

MONITORING WELL FIELD LOG 2005

SAMPLE LOCATION / MW 2 DATE: 5/26/2005

PROJECT NAME:	ESCALON / FORMER AM/PM	ANALYSIS PERFORMED:	SEE CHAIN OF CUSTODY
ADDRESS:	1305 ESCALON AVENUE	SAMPLE TIME:	11:05
CITY, STATE:	ESCALON, CA	SAMPLE CONTAINERS:	2 V.O.A.'S
SITE CONTACT:		PRESERVATIVES:	HCL
CONSULTANT:	GEOLOGICAL TECHNICS	LAB. ANALYSIS BY:	CLS LABS.

PROJECT MANAGER	ERIC PRICE	MONUMENT:	FLUSH
SAMPLER:	DEL-TECH / DON LIGHT	WELL CASING MATERIAL	PVC
SIGNED:	<i>Don Light</i>	WELL CASING DIA. :	2" / 0.1632
SAMPLE MEDIA:	GROUNDWATER	P.I.D. READING / ODOR:	N/A NONE
TOP OF CASING ELEVATION:	MSL	COLOR:	CLEAR
DEPTH TO WATER: (feet.100th's)	64.94 FEET	CALC. PURGE VOL.:	1.95 GAL.
DEPTH OF WELL: (feet.100th's)	76.90 FEET	TOTAL VOLUME PURGED:	5.86 GAL.
STANDING WATER COLUMN:	11.96 FEET	DEPTH OF PUMP:	75 FEET

FIELD PARAMETERS

TIME	CUMULATIVE CASING VOLUME PER PURGE	DRAW DOWN (D.T.W.)	PUMPING RATE (GPM/LPM)	pH (units)	E. C. (UmMHOS)	TEMP. (Celsius)	O.R.P. (Mvolts)	DISSOLVED OXYGEN (PPM)	TURBIDITY COLOR (N.T.U.)
	0	N/A	.5 GPM	7.07	815	19.9	110.8	4.00	CLEAR
	1.95	"	"	7.13	802	19.8	109.3	4.01	"
	3.90	"	"	7.13	801	19.6	109.9	4.36	"
	5.86	"	"	7.12	801	19.6	109.4	3.98	"

PURGE METHOD: DEDICATED WATERRA PUMP.
SAMPLE METHOD: DEDICATED WATERRA PUMP.
D. T. W. AFTER PURGE: D. T. W. AT SAMPLE TIME: 65.83'
WELL INTEGRITY: CAP & SEAL ARE SECURE.
WELL LOCATION: SEE SITE MAP.
REMARKS:

WEATHER: CLEAR SKIES / WARM WIND: NONE
QUALITY CONTROL: ALL PURGING EQUIPMENT AND SAMPLING EQUIPMENT WAS CLEANED IN THE FIELD WITH A STEAMCLEANER & ALCONOX SOAP. NEW NITRILE GLOVES.
CONTAINMENT: D.O.T. 17 55 GAL. STEEL DRUM OR 60 GAL. POLY DRUM.

INSTRUMENTATION:	Y.S.I. 3560 FLOWCELL	Y.S.I. DISSOLVED OXYGEN METER
	SOLINIST SLOPE METER	THERMODINE 580B P.I.D.
	KECK INTERFACE METER	TURBIDITY METER



DEL-TECH GEOTECHNICAL SUPPORT SERVICES

MONITORING WELL FIELD LOG 2005

SAMPLE LOCATION / MW 3		DATE: 5/26/2005	
PROJECT NAME: ESCALON / FORMER AM/PM		ANALYSIS PERFORMED: SEE CHAIN OF CUSTODY	
ADDRESS: 1305 ESCALON AVENUE		SAMPLE TIME: 10:50	
CITY, STATE: ESCALON, CA		SAMPLE CONTAINERS: 2 V.O.A.'S	
SITE CONTACT:		PRESERVATIVES: HCL	
CONSULTANT: GEOLOGICAL TECHNICS		LAB. ANALYSIS BY: CLS LABS.	
PROJECT MANAGER ERIC PRICE		MONUMENT: FLUSH	
SAMPLER: DEL-TECH / DON LIGHT		WELL CASING MATERIAL PVC	
SIGNED: <i>Don Light</i>		WELL CASING DIA. : 2" / 0.1632	
SAMPLE MEDIA: GROUNDWATER		P.I.D. READING / ODOR: N/A NONE	
TOP OF CASING ELEVATION: MSL		COLOR: BROWN	
DEPTH TO WATER: (feet.100th's) 64.91 FEET		CALC. PURGE VOL.: 1.92 GAL.	
DEPTH OF WELL: (feet.100th's) 76.68 FEET		TOTAL VOLUME PURGED: 5.76 GAL.	
STANDING WATER COLUMN: 11.77 FEET		DEPTH OF PUMP: 75 FEET	

FIELD PARAMETERS

TIME	CUMULATIVE CASING VOLUME PER PURGE	DRAW DOWN (D.T.W.)	PUMPING RATE (GPM/LPM)	pH (units)	E. C. (UmMHOS)	TEMP. (Celsius)	O.R.P. (Mvolts)	DISSOLVED OXYGEN (PPM)	TURBIDITY COLOR (N.T.U.)
	0	N/A	.5 GPM	7.09	794	19.6	114.7	3.72	BROWN
	1.92	"	"	7.00	821	19.8	115.8	3.70	"
	3.84	"	"	7.00	821	19.8	115.0	3.65	"
	5.76	"	"	7.01	842	20.1	114.6	3.95	"

PURGE METHOD:	DEDICATED WATERRA TUBING / BY HAND.	
SAMPLE METHOD:	DEDICATED WATERRA PUMP.	
D. T. W. AFTER PURGE:	D. T. W. AT SAMPLE TIME: 64.93'	
WELL INTEGRITY:	CAP & SEAL ARE SECURE.	
WELL LOCATION:	SEE SITE MAP.	
REMARKS:		
WEATHER:	CLEAR SKIES / WARM	WIND: NONE
QUALITY CONTROL:	ALL PURGING EQUIPMENT AND SAMPLING EQUIPMENT WAS CLEANED IN THE FIELD WITH A STEAMCLEANER & ALCONOX SOAP. NEW NITRILE GLOVES.	
CONTAINMENT:	D.O.T. 17 55 GAL. STEEL DRUM OR 60 GAL. POLY DRUM.	
INSTRUMENTATION:	Y.S.I. 3560 FLOWCELL	Y.S.I. DISSOLVED OXYGEN METER
	SOLINIST SLOPE METER	THERMODINE 580B P.I.D.
	KECK INTERFACE METER	TURBIDITY METER



DEL-TECH GEOTECHNICAL SUPPORT SERVICES

MONITORING WELL FIELD LOG 2005

SAMPLE LOCATION / MW 4 DATE: 5/26/2005									
PROJECT NAME: ESCALON / FORMER AM/PM					ANALYSIS PERFORMED: SEE CHAIN OF CUSTODY				
ADDRESS: 1305 ESCALON AVENUE					SAMPLE TIME: 9:17				
CITY, STATE: ESCALON, CA					SAMPLE CONTAINERS: 2 V.O.A.'S				
SITE CONTACT:					PRESERVATIVES: HCL				
CONSULTANT: GEOLOGICAL TECHNICS					LAB. ANALYSIS BY: CLS LABS.				
PROJECT MANAGER ERIC PRICE					MONUMENT: FLUSH				
SAMPLER: DEL-TECH / DON LIGHT					WELL CASING MATERIAL PVC				
SIGNED: <i>Don Light</i>					WELL CASING DIA. : 2" / 0.1632				
SAMPLE MEDIA: GROUNDWATER					P.I.D. READING / ODOR: N/A NONE				
TOP OF CASING ELEVATION: MSL					COLOR: CLEAR				
DEPTH TO WATER: (feet.100th's) 65.06 FEET					CALC. PURGE VOL.: 2.14 GAL.				
DEPTH OF WELL: (feet.100th's) 78.20 FEET					TOTAL VOLUME PURGED: 6.43 GAL.				
STANDING WATER COLUMN: 13.14 FEET					DEPTH OF PUMP: 76 FEET				
FIELD PARAMETERS									
TIME	CUMULATIVE CASING VOLUME PER PURGE	DRAW DOWN (D.T.W.)	PUMPING RATE (GPM/LPM)	pH (units)	E. C. (UmMHOS)	TEMP. (Celsius)	O.R.P. (Mvolts)	DISSOLVED OXYGEN (PPM)	TURBIDITY COLOR (N.T.U.)
	0	N/A	.5 GPM	7.71	705	20.4	114.1	3.03	CLEAR
	2.14	"	"	7.06	651	19.9	108.6	3.66	"
	4.29	"	"	7.01	650	19.8	101.1	3.69	"
	6.43	"	"	7.02	647	19.8	107.4	3.83	"
PURGE METHOD: DEDICATED WATERRA PUMP.									
SAMPLE METHOD: DEDICATED WATERRA PUMP.									
D. T. W. AFTER PURGE:					D. T. W. AT SAMPLE TIME: 65.05'				
WELL INTEGRITY: CAP & SEAL ARE SECURE.									
WELL LOCATION: SEE SITE MAP.									
REMARKS:									
WEATHER: CLEAR SKIES / WARM WIND: NONE									
QUALITY CONTROL: ALL PURGING EQUIPMENT AND SAMPLING EQUIPMENT WAS CLEANED IN THE FIELD WITH A STEAMCLEANER & ALCONOX SOAP. NEW NITRILE GLOVES.									
CONTAINMENT: D.O.T. 17 55 GAL. STEEL DRUM OR 60 GAL. POLY DRUM.									
INSTRUMENTATION: Y.S.I. 3560 FLOWCELL					Y.S.I. DISSOLVED OXYGEN METER				
SOLINIST SLOPE METER					THERMODINE 580B P.I.D.				
KECK INTERFACE METER					TURBIDITY METER				



DEL-TECH GEOTECHNICAL SUPPORT SERVICES

MONITORING WELL FIELD LOG 2005

SAMPLE LOCATION / MW 5		DATE: 5/26/2005	
PROJECT NAME: ESCALON / FORMER AM/PM		ANALYSIS PERFORMED: SEE CHAIN OF CUSTODY	
ADDRESS: 1305 ESCALON AVENUE		SAMPLE TIME: 9:43	
CITY, STATE: ESCALON, CA		SAMPLE CONTAINERS: 2 V.O.A.'S	
SITE CONTACT:		PRESERVATIVES: HCL	
CONSULTANT: GEOLOGICAL TECHNICS		LAB. ANALYSIS BY: CLS LABS.	
PROJECT MANAGER ERIC PRICE		MONUMENT: FLUSH	
SAMPLER: DEL-TECH / DON LIGHT		WELL CASING MATERIAL PVC	
SIGNED: <i>Don Light</i>		WELL CASING DIA. : 2" / 0.1632	
SAMPLE MEDIA: GROUNDWATER		P.I.D. READING / ODOR: N/A NONE	
TOP OF CASING ELEVATION: MSL		COLOR: LIGHT BROWN	
DEPTH TO WATER: (feet.100th's) 63.89 FEET		CALC. PURGE VOL.: 1.55 GAL.	
DEPTH OF WELL: (feet.100th's) 73.38 FEET		TOTAL VOLUME PURGED: 4.65 GAL.	
STANDING WATER COLUMN: 9.49 FEET		DEPTH OF PUMP: 71 FEET	

FIELD PARAMETERS

TIME	CUMULATIVE CASING VOLUME PER PURGE	DRAW DOWN (D.T.W.)	PUMPING RATE (GPM/LPM)	pH (units)	E. C. (UmMHOS)	TEMP. (Celsius)	O.R.P. (Mvolts)	DISSOLVED OXYGEN (PPM)	TURBIDITY COLOR (N.T.U.)
	0	N/A	.5 GPM	6.95	736	20.1	110.3	3.01	LT. BROWN
	1.55	"	"	6.90	739	20.0	111.8	3.82	"
	3.10	"	"	6.90	737	19.9	113.0	4.05	"
	4.65	"	"	6.87	737	19.9	114.7	3.98	"

PURGE METHOD:	DEDICATED WATERRA PUMP.	
SAMPLE METHOD:	DEDICATED WATERRA PUMP.	
D. T. W. AFTER PURGE:	D. T. W. AT SAMPLE TIME: 63.90'	
WELL INTEGRITY:	CAP & SEAL ARE SECURE.	
WELL LOCATION:	SEE SITE MAP.	
REMARKS:		
WEATHER:	CLEAR SKIES / WARM	WIND: NONE
QUALITY CONTROL:	ALL PURGING EQUIPMENT AND SAMPLING EQUIPMENT WAS CLEANED IN THE FIELD WITH A STEAMCLEANER & ALCONOX SOAP. NEW NITRILE GLOVES.	
CONTAINMENT:	D.O.T. 17 55 GAL. STEEL DRUM OR 60 GAL. POLY DRUM.	
INSTRUMENTATION:	Y.S.I. 3560 FLOWCELL	Y.S.I. DISSOLVED OXYGEN METER
	SOLINIST SLOPE METER	THERMODINE 580B P.I.D.
	KECK INTERFACE METER	TURBIDITY METER



DEL-TECH GEOTECHNICAL SUPPORT SERVICES

MONITORING WELL FIELD LOG 2005

SAMPLE LOCATION / MW 101

DATE:

5/26/2005

PROJECT NAME:	ESCALON / FORMER AM/PM	ANALYSIS PERFORMED:	SEE CHAIN OF CUSTODY
ADDRESS:	1305 ESCALON AVENUE	SAMPLE TIME:	10:20
CITY, STATE:	ESCALON, CA	SAMPLE CONTAINERS:	2 V.O.A.'S
SITE CONTACT:		PRESERVATIVES:	HCL
CONSULTANT:	GEOLOGICAL TECHNICS	LAB. ANALYSIS BY:	CLS LABS.

PROJECT MANAGER	ERIC PRICE	MONUMENT:	FLUSH
SAMPLER:	DEL-TECH / DON LIGHT	WELL CASING MATERIAL	PVC
SIGNED:	<i>Don Light</i>	WELL CASING DIA. :	2" / 0.1632
SAMPLE MEDIA:	GROUNDWATER	P.I.D. READING / ODOR:	N/A NONE
TOP OF CASING ELEVATION:	MSL	COLOR:	CLEAR
DEPTH TO WATER: (feet.100th's)	64.48 FEET	CALC. PURGE VOL.:	3.50 GAL
DEPTH OF WELL: (feet.100th's)	85.95 FEET	TOTAL VOLUME PURGED:	10.51 GAL
STANDING WATER COLUMN:	21.47 FEET	DEPTH OF PUMP:	83 FEET

FIELD PARAMETERS

TIME	CUMULATIVE CASING VOLUME PER PURGE	DRAW DOWN (D.T.W.)	PUMPING RATE (GPM/LPM)	pH (units)	E. C. (UmMHOS)	TEMP. (Celsius)	O.R.P. (Mvolts)	DISSOLVED OXYGEN (PPM)	TURBIDITY COLOR (N.T.U.)
	0	N/A	.5 GPM	7.07	681	19.9	113.1	3.62	CLEAR
	3.50	"	"	7.10	675	19.7	111.0	3.59	"
	7.01	"	"	7.10	673	19.7	111.3	3.82	"
	10.51	"	"	7.09	673	19.7	111.6	3.65	"

PURGE METHOD: DEDICATED WATERRA PUMP.

SAMPLE METHOD: DEDICATED WATERRA PUMP.

D. T. W. AFTER PURGE: **D. T. W. AT SAMPLE TIME:** 64.50'

WELL INTEGRITY: CAP & SEAL ARE SECURE.

WELL LOCATION: SEE SITE MAP.

REMARKS:

WEATHER: CLEAR SKIES / WARM **WIND:** NONE

QUALITY CONTROL: ALL PURGING EQUIPMENT AND SAMPLING EQUIPMENT WAS CLEANED IN THE FIELD WITH A STEAMCLEANER & ALCONOX SOAP. NEW NITRILE GLOVES.

CONTAINMENT: D.O.T. 17 55 GAL. STEEL DRUM OR 60 GAL. POLY DRUM.

INSTRUMENTATION: Y.S.I. 3560 FLOWCELL Y.S.I. DISSOLVED OXYGEN METER

SOLINIST SLOPE METER THERMODINE 580B P.I.D.

KECK INTERFACE METER TURBIDITY METER

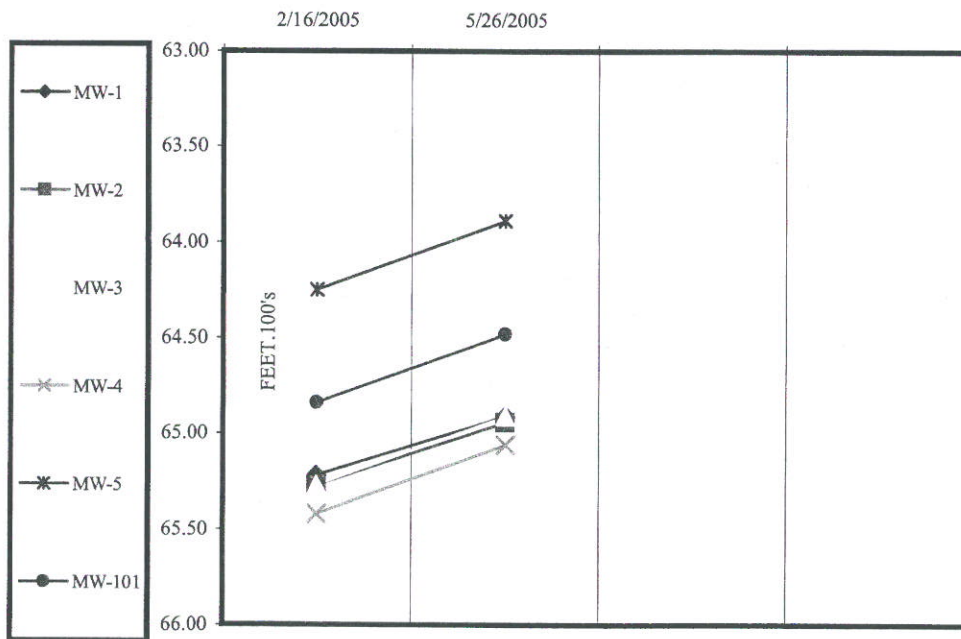


DEL-TECH GEOTECHNICAL SUPPORT
 (209) 847-8757 (OFFICE) * (209) 847-7744 (FAX) * deltech1@pacbell.net (Email)

**CITY OF ESCALON FORMER AM-PM
 1305 ESCALON AVENUE / ESCALON**

**MONITORING WELL FIELD SUMMARY LOG 2005
 DEPTH TO WATER MEASUREMENTS**

	QTR. 1	QTR. 2	QTR. 3	QTR. 4	TOTAL
DATE	2/16/05	5/26/05			DEPTH
LOCATION					
MW-1	65.22	64.91			76.20'
MW-2	65.27	64.94			76.90'
MW-3	65.27	64.91			76.68'
MW-4	65.42	65.06			78.20'
MW-5	64.25	63.89			73.38
MW-101	64.84	64.48			85.95



D.T.W. CHART

NOTE:

ALL MEASUREMENTS ARE MADE FROM THE NORTH SIDE AND TOP EDGE OF THE WELL CASING. THE TOP OF CASING WITH A NOTCH OR PERMANENT MARKINGS, WHICH EVER ONE CONDITION IS APPROPRIATE.